Foreman seems to fail to correctly failover between the resolvers listed in /etc/resolv.conf, leading to failures to build hosts when the first listed resolver is unavailable.

The error;

```
failed to detect boot server: ERF50-9294 [Foreman::WrappedException]: Unable to find IP address for 'dhcp.example.com' ([Net::Error]: execution expired)  
.Foreman::WrappedException: ERF50-9294 [Foreman::WrappedException]: Unable to find IP address for 'dhcp.example.com' ([Net::Error]: execution expired) 
```

The backtrace;

```
/usr/share/foreman/app/services/nic_ip_resolver.rb:24:in `rescue in to_ip_address'  
/usr/share/foreman/app/services/nic_ip_resolver.rb:15:in `to_ip_address'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:91:in `boot_server'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:126:in `dhcp_attrs'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:103:in `build_dhcp_record'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:30:in `block in dhcp_records'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:29:in `map'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:29:in `block in `map'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:29:in `build_dhcp_records'  
/usr/share/foreman/app/models/concerns/orchestration/dhcp.rb:202:in `dhcp_conflict_detected?'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_storage/callbacks.rb:426:in `block in make_lambda'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_storage/callbacks.rb:236:in `block in halting_and_conditional'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_support/callbacks.rb:517:in `block in invoke_after'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_support/callbacks.rb:517:in `each'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_support/callbacks.rb:133:in `run callbacks'  
/usr/share/foreman/vendor/ruby/2.3.0/gems/activestorage-5.2.1/lib/active_support/callbacks.rb:816:in `__run_validation_callbacks'
```
Hello, we use Timeout Ruby class in our codebase which is not a good approach. Actually Ruby DNS Resolver reads all "nameserver" entries and tries one after another, however the way this is implemented is that the default Ruby DNS timeout is high (5, 10, 20, 40 seconds) and it probably does not reply fast enough and the global timeout (in our codebase) fires off.

The solution is to remove the extra timeout we have there and rely only on the Ruby DNS resolver timeout. No idea why this wasn't there from the day one. Try the patch and let me know if it solved the problem.

Associated revisions

Revision e7500fd - 08/05/2019 12:27 PM - Lukáš Zapletal
Fixes #27160 - do not use Ruby Timeout for DNS (#6861)

Revision 38a02a7b - 08/07/2019 10:41 AM - Ewoud Kohl van Wijngaarden
Refs #27160 - Update the DNS timeout description
This corrects the short descriptive name to match the internal name. It also changes the description to indicate it's examples. This is important because plugins can also use these functions.

History

#1 - 06/26/2019 08:13 AM - Lukas Zapletal
- Triaged changed from No to Yes
- Assignee set to Lukas Zapletal
- Status changed from New to Assigned
- Category set to DNS

Hello, we use Timeout Ruby class in our codebase which is not a good approach. Actually Ruby DNS Resolver reads all "nameserver" entries and tries one after another, however the way this is implemented is that the default Ruby DNS timeout is high (5, 10, 20, 40 seconds) and it probably does not reply fast enough and the global timeout (in our codebase) fires off.

The solution is to remove the extra timeout we have there and rely only on the Ruby DNS resolver timeout. No idea why this wasn't there from the day one. Try the patch and let me know if it solved the problem.

#2 - 06/26/2019 08:20 AM - The Foreman Bot
- Status changed from Assigned to Ready For Testing
- Pull request https://github.com/theforeman/foreman/pull/6861 added

#3 - 08/05/2019 12:27 PM - The Foreman Bot
- Fixed in Releases 1.24.0 added

#4 - 08/05/2019 01:01 PM - Anonymous
- Status changed from Ready For Testing to Closed

Applied in changeset e7500fd8d376933db02197c03323d03bf77a627.
#5 - 08/06/2019 01:24 PM - The Foreman Bot
- Pull request https://github.com/theforeman/foreman/pull/6954 added

#6 - 08/11/2019 02:25 PM - Amir Fefer
- Related to Bug #27585: default dns timeout value is nil added

#7 - 08/11/2019 02:29 PM - Amir Fefer
I think its very non-trivial for a user (like me) to understand how to use this setting.... also, this seems a lot like implementation details that leak into the settings page, and we should find a better way to represent it?